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PRELIMINARY ISSUE
INSTALLATIONS INSTRUCTIONS

IIN-D139-816

Utility Interior Kits

AGUSTA AB/AW139 MODELS

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: _____
D. SHEPHERD (DE # 02)

DATE: 13.12.16
CERT. NO.: SH12-54
ISSUE NO.: 1

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Revision: **D**
Date: 13.12.16

Revision Record

Revision No.	Issue Date	Description
A	12.10.12	New Issue
B	12.12.06	Revise Section 3.1.5 to add S/N affectivity Revise Parts to add Replacement Panel Assemblies
C	13.06.28	Revise Sect 3.1.8, 3.1.19, 3.1.20, 3.1.31, 3.1.34, 3.1.36, 3.1.43 Revise Parts List to add hardware
D	13.12.16	Revise Sections 3.1.1, 3.1.7, 3.1.17 thru 3.1.20 Revise Parts List to added D5032-1/-3 & Removed 140-001-1

PRELIMINARY ISSUE

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1.0 INTRODUCTION

These instructions cover the installation of Dart D139-816-011 Interior Ceiling Panel Kit on the AB/AW139 aircraft.

The **D139-816-011 Interior Ceiling Panel Kit** provides a series of lightweight, cost effective, interior ceiling panels to replace the OEM interior ceiling panels. The D139-816-011 Interior Ceiling Panels Kit consists of 7 panels made from 0.080" thick Kydex 6185 plastic sheet and provides improved airflow distribution, better lighting, more headroom, and better access for maintenance.

The components in the D139-816-011 Interior Ceiling Panel Kit are as defined in the parts list in Section 5 of this document. The different Dart installations are designated by the last 3 digits of the Dart installation Part No. For convenience, only the last three digits of the Part No. are listed on the top row of each table. The quantity of each component which is included in the D139-816-011 Interior Ceiling Panel Kit, for example, is as defined in the column labeled -011.

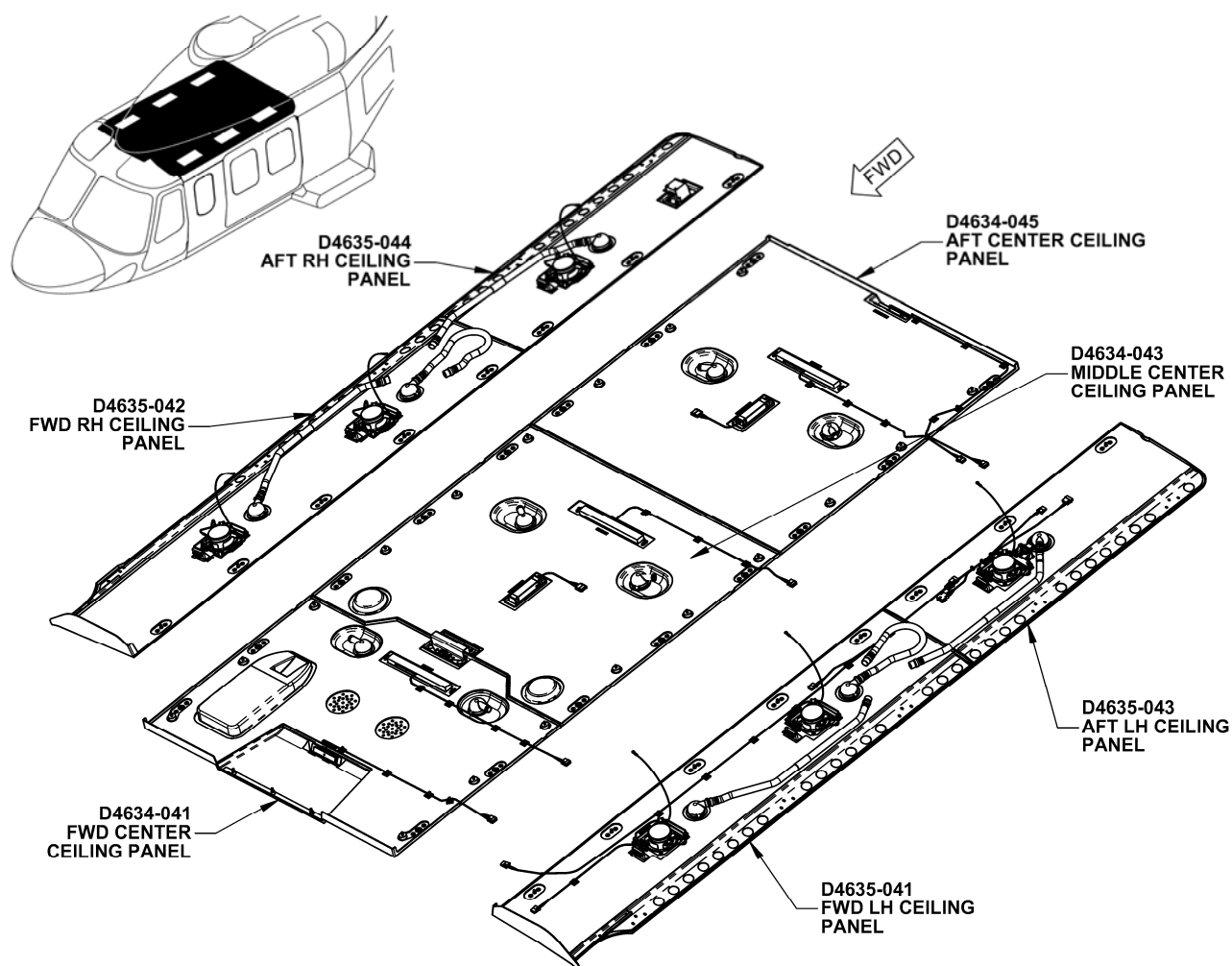


Figure 1. – D139-816-011 Utility Interior Ceiling Panel Kit

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2.0 GENERAL NOTES

2.1 COMPATIBILITY

Compatibility of this installation with the aircraft is the **responsibility of the installer**. Ensure that this installation does not conflict with a previous modification.

2.2 WORKMANSHIP

Unless otherwise stated, all workmanship should be to the standard set by the Aircraft Maintenance Manual. Due to the nature of composite materials, variance in composite material thickness may occur, resulting in screws that are too long or too short. The customer has the option of replacing screws that are too long with shorter screws, ensuring that there are a minimum of 1.5 threads exposed after the nut. **Screws that do not have the minimum of 1.5 threads exposed after the nut must be replaced with longer screws by the customer.**

2.3 CONTINUING AIRWORTHINESS

This installation should be maintained in accordance with Instructions for Continued Airworthiness ICA-D139-816.

2.4 FASTENER TORQUES

Table 1. – Fastener Torque

Fastener Type	Torque (in-lb)	Torque (N*m)
8-32	12-15	1.4-1.7
10-32	20-25	2.3-2.8
1/4-28	50-70	5.6-7.9

3.0 INSTALLATION PROCEDURE

3.1 Installation of D139-816-011 Interior Ceiling Panel Kit.

3.1.1 During this procedure, you must put the applicable caps/plugs on all:

- Disconnected duct line ends.
- Disconnected electrical connectors.
- It is acceptable to trim back the foam core on the back of panel to prevent interference with other parts in the panel. It is acceptable to trim D5032-1/-3 Doubler being careful to maintain minimum edge distance on each hole. Deburr and finish doublers with MIL-P-85582 or MIL-P-23377 primer.

3.1.2 Open and remove the following OEM p/n's 3G2580A17231/3G2580A17331 LH/RH Liner Assembly Hinged Ceiling Panels (retain p/n 362150V01251 Temperature Sensor from RH panel to be installed as part of D139-816-011 Kit). Do not remove hinges from the aircraft. Remove 3G2580A17531 Ceiling Cover Assembly and 3G2580A16631 Aft Ceiling Liner Assembly (retain 2 x p/n 2LA455115-26 Emergency Light to be installed as part of D139-816-011 Kit). Remove OEM parts from the aircraft per Section 25-80 Insulation and Lining of the AB/AW139 Aircraft Maintenance Manual as shown in Figure 2. If aircraft is equipped with hoist radio of the transmitter it must be removed temporarily.

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- 3.1.3 Disconnect and remove the following existing air distributions p/n's 9915B010000/9915C010000, 9920B010000/ 9917C010000, 9921B010000/9919C010000, 9919B010000/9916C010000, 9918C010000 (LH diffusers) and p/n 9914B010000/9914C010000, 9917B010000/9916C010000, 9918B010000/9918C010000, 9916B010000/9917C010000 and 9919C010000 (RH diffusers) from the existing Ø2.0 (50.8 mm) duct assembly hoses on the LH/RH as shown in Figure 3.
- 3.1.4 Open p/n 3G2580A21631-125 LH roof ceiling panel and p/n 3G2580A21631-126 RH roof ceiling panel enough to install 6 x D4653-041 Manifold as shown in Figure 4. Pull existing 6 x Ø2.0 (50.8 mm) ducts up thru roof ceiling panels and install 6 x D4653-041 Manifold into panels. Connect Ø2.0 duct hoses to D4653-041 Manifold and secure with 6 x D4653-11 Clamp using 2 x BT3LH-L tie wrap strap per manifold as shown in Figure 4. Close panels, torque screws per table 1.
- 3.1.5 Install D4728-057 Harness Assy. (connector PS7P1) to existing aircraft wiring per Wire Diagram D139-816-901 (for S/N 31201 and subsequent, 41201 and subsequent), or per Wire Diagram D139-816-903 (for S/N 31005 thru 31200, 41001 thru 41200).
- 3.1.6 Remove 3 x MS27039-1-09 screw from fwd center hinge circuit breaker panel to prepare for the installation of D4634-041 Fwd Center Panel as shown in Figure 5a.
- 3.1.7 Temporarily fasten D4634-041/-043/-045 center panels into p/n E4417F01 cabin roof mount, start first with D4634-045 center panel using MS27039-1-15 screw and 6 x AN970-3 washer on 6 x Ø0.204" (5.2mm) predrilled holes on the panels as shown in Figure 6. Ensure that a gap between panel and the aircraft ceiling of approximately 0.050" (1.3 mm) is maintained. Do not connect any electrical or duct lines at this time.
- 3.1.8 Transfer 3 x Ø0.204" (#7 Drill) hole from fwd hinged fuse panel to D4634-041 Fwd Center Panel as shown in Figure 5b. Bond 3X D4664-7 Spacer to D4634-041 Fwd Center Panel using 3M 1300L Contact Cement, to align with holes in the panel as shown in Figure 6.
- 3.1.9 If the aircraft is equipped with a hoist radio system, position D4648-1 Template as marked on the template per Figure 6 and transfer Ø0.098 (#40 drill) pilot holes from D4648-1 template to D4634-041 Fwd Center Panel. Open Ø0.098" holes to Ø0.204" and ensure holes are in line with hoist radio bracket holes in the cabin roof.
- 3.1.10 Temporarily remove D4634-041 Fwd Center Panel.
- a) Temporarily remove existing 3 x MS27039-1-() screws at STA 148.4 (3770) as shown in Figure 7.
 - b) Place and lock D4712-043 Bracket Assembly to D4634-043 Middle Center Panel as shown in Figure 7.
 - c) Remove the roof insulation under the D4712-043 in preparation to install it at STA 148.4 (3770). Ensure D4712-043 is lined up with the airframe fasteners.
 - d) Mark and transfer 3 x Ø0.204" (5.2mm) holes from the airframe to D4712-043 Bracket Assembly as shown in Figure 7. Deburr and touch-up new holes with MIL-P-85582 or MIL-P-23377 primer.
 - e) Install the D4712-043 Bracket Assembly with 3 x MS27039-1-() existing screws. Torque screws per Table 1.
- 3.1.11 If the aircraft is equipped with a hoist radio system, trim the necessary front protruding area to allow access to the cannon plug for the hoist radio. Deburr as necessary.
- 3.1.12 Temporarily reinstall D4634-041 Center Panel as shown in Figure 6.

- 3.1.13 Position the D4635-043/-044 LH/RH Aft Panels. Ensure airframe hinges are touching the flange on the panels. Ensure no binding between the panels and existing interior and ensure fwd edge of D4635-043/-044 panels are in line with the forward edge of the D4634-045 center panel. Mark/transfer oval holes from hinges to the D4635-043/-044 panels as shown in Figure 8. Open marked oval holes thru the panel. Deburr as required. Keep debris away from speakers and air vents during drilling and trimming operations.
- 3.1.14 Install the D4635-043/-044 LH/RH Aft Panels onto the airframe hinges using D4636-11 Brackets as shown in Figure 8. Ensure no binding between the panels and existing interior. Adjust/trim the D4635-043/-044 LH/RH Aft Panels as required. Torque nuts per Table 1.
- 3.1.15 Position the D4635-041/-042 LH/RH Fwd Panels onto the airframe hinges. Ensure that the -041/-042 panels are touching the flange on the panels. Ensure no binding between the panels and existing lining and ensure aft edge of D4635-041/-042 panels are in line with D4634-043 center panel. Mark/transfer oval holes from hinges to the D4635-041/-042 panels as shown in Figure 8. Open marked oval holes thru the panel. Deburr as required. Keep debris away from speakers and air vents during drilling and trimming operations.
- 3.1.16 Install the D4635-041/-042 LH/RH Fwd Panels to airframe hinges using D4636-11 Bracket as shown in Figure 8. Ensure no binding between the panels and existing interior. Adjust/trim the D4635-041/-042 LH/RH Fwd Panels as required. Torque nuts per Table 1.
- 3.1.17 With D4634-041/-043/-045 Center Panels temporarily installed, position the D4635-043/-044 LH/RH Aft Panels in the closed position. Transfer only the middle hole of the pre-drilled $\varnothing 0.129$ (#30 drill) holes from the D4635-043/-044 LH/RH Aft Panels to D4634-045 Aft center Panel as shown in Figure 9. **CAUTION: Be careful not to cut wire hardness.** Use clecos to hold panel in the closed position with the center panel.
- 3.1.18 With the D4635-041/-042 LH/RH Fwd Panels in the closed position, transfer only the middle of the pre-drilled $\varnothing 0.129$ (#30 drill) holes from the D4635-041/-042 LH/RH Fwd Panels to D4634-043 Fwd/Middle Center Panels as shown in Figure 9. **CAUTION: Be careful not to cut wire hardness.** Use clecos, as required, to hold panel in the closed position with the center panels.
- 3.1.19 Open the D4635-041/-042/-043/-044 panels. Open-up middle $\varnothing 0.129$ " hole to $\varnothing 0.250$ " (6 mm) in the D4635-041/-042/-043/-044 panels. Deburr holes as required. Install D5032-3 Doublers with D4636-5 Brackets as shown in Figure 10.
- 3.1.20 Unfasten D4634-041/-043/-045 center panels from roof cabin. Repeat the following procedure on each center panel:
- Position the middle $\varnothing 0.129$ " holes on D4636-9 template with cleco in the newly drilled $\varnothing 0.129$ " holes in the panels. Transfer 2 x $\varnothing 0.129$ " holes from D4636-9 template to D4634-041/-043/-045 panels.
 - Ensure that the long edge of the D4636-9 template is maintained parallel with the edge of the center panel, while transferring the holes as shown in Figure 11.
 - Open middle $\varnothing 0.129$ " holes to $\varnothing 0.750$ " (19 mm) in the D4634-041/-043/-045 Center Panels as shown in Figure 12. **CAUTION: Be careful not to cut wire hardness.**
 - Install D4636-043 Brackets and D5032-1 Doublers to D4634-041/-043/-045 Center Panels as shown in Figure 12.
- 3.1.21 Secure the D4708-9 Lanyard on D4635-041/-042/-043/-044 side panels with existing screw at LBL/RBL 22.1 (561) as shown in Figure 15 & Figure 16.

- 3.1.22 Connect D4716-3 Duct Hoses to the D4646-1 Plenum Caps on the D4635-043/-044 Aft LH/RH Panels as shown in Figure 14. Route hoses toward D4653-041 Manifold and secure with D4730-020-035 Velcro Strip. Secure ends of hose to D4646-1 Plenum Cap and D4653-041 Manifold Assembly with BT1.5I-M tie wrap strap as shown in Figure 14 & Figure 16.
- 3.1.23 Connect D4716-3 Duct Hoses to the forward D4646-1 Plenum Cap and the D4716-1 Duct Hose to the aft D4646-1 Plenum Cap on the D4635-041/-042 Aft LH/RH panels as shown in Figure 13. Route duct hoses toward D4653-041 Manifold and secure with D4730-020-035 Velcro Strip. Secure ends of hose to D4646-1 Plenum Cap and D4653-041 Manifold Assembly with BT1.5I-M tie wrap strap as shown in Figure 13 & Figure 15.
- 3.1.24 Transfer p/n 362150V01251 Temperature Sensor to D4635-044 RH Aft Panel from OEM p/n 3G2580A08731 RH Hinged Lining Panel as shown in Figure 17.
- 3.1.25 Install existing connector S90P1 to Cabin Temperature Sensor. Attach existing ground lug and new D4728-063 Ground Cable assembly to one of the install screws of the Cabin Temperature Sensor (S90GS1). Attach other end of D4728-063 Ground Cable assembly to the screw on the ceiling as shown in Figure 17.
- 3.1.26 On D4635-044 panel, connect DS16P1 on the D4728-046 wire harness to DS16J1 airframe connector.
- 3.1.27 On the D4635-042 RH Fwd Ceiling Panel, connect DS12P1 on D4728-042 wire harness to DS12J1 on the airframe. Connect DS14P1 on the D4728-044 wire harness to DS14J1 on the airframe.
- 3.1.28 Connect D4716-5 Duct Hoses to the D4646-1 Plenum Caps on the D4634-041/-043/-045 Fwd/Middle/Aft Center Panel. Secure ends of hose to D4646-1 Plenum Caps and D4653-041 Manifold Assembly with BT1.5I-M tie wrap strap as shown in Figure 18.
- 3.1.29 Install the two p/n 2LA455115-26 emergency lights on D4634-043/-045 Middle/Aft Center Panels as shown in Figure 19.
- 3.1.30 On the D4634-045 Aft Center Panel, connect DS54P1 emergency dome light connector to DS54J1.
- 3.1.31 Attach the D4634-045 Aft Center Panel to aircraft using 4X MS27039-1-15 screws, 4X AN970-3 washers toward aft section of the panel and 2X MS27039-1-15 screws and 2X D4636-7 retainers toward fwd section of the panel as shown in Figure 19.
- 3.1.32 Connect 3312J5 on the D4728-055 wiring harness to 3312P5 on the D4728-061 wire harness on D4635-043 LH Aft Ceiling Panel Assembly. Connect 3312P2 on the D4728-049 wire harness to 3312J2 on the D4728-045 wire harness on the D4635-043 LH Aft Ceiling Panel Assembly.
- 3.1.33 On the D4634-043 Middle Center Panel, connect DS53P1 emergency dome light connector to DS53J1.
- 3.1.34 Attach the D4634-043 Middle Center Panel to aircraft using 2X MS27039-1-15 screws, 2X AN970-3 washers at center section of the panel and 4X MS27039-1-15 screws and 4X D4636-7 retainers toward fwd sections of the panel as shown in Figure 19.
- 3.1.35 Connect 3312P4 on the D4728-053 Wiring Harness to 3312J4 on D4728-059 wire harness on D4635-041 LH Fwd Ceiling Panel Assembly.

- 3.1.36 Attach the D4634-041 Fwd Center Panel to aircraft using 4X MS27039-1-15 screws, 4X AN970-3 washers toward fwd section of the panel and 2X MS27039-1-15 screws and 2X D4636-7 retainers toward aft section of the panel as shown in Figure 5b and Figure 19.
- 3.1.37 On the D4634-041 Fwd Center Panel, connect 3312P3 on the D4728-051 wire harness to 3312J3 on the D4728-059 wire harness on the D4635-041 LH Fwd Ceiling Panel Assembly. Connect 3312P1 on the D4728-047 wire harness to 3312J1 on D4728-041 wire harness on the D4635-041 LH Fwd Ceiling Panel Assembly.
- 3.1.38 On the D4635-043 LH Aft Ceiling Panel, connect PS9J1 on the D4728-061 wire harness to PS9P1 on the airframe. Connect 3312J6 on the D4728-061 wire harness to 3312P6 on the D4728-059 wire harness on the D4635-041 LH Fwd Ceiling Panel. Connect DS17P1 on D4728-045 wire harness to DS17J1 on the airframe.
- 3.1.39 On the D4635-041 LH Fwd Ceiling Panel, connect DS13P1 on D4728-041 wire harness to DS13J1 on the airframe. Connect DS15P1 on the D4728-043 wire harness to DS15J1 on the airframe.
- 3.1.40 Secure the hoses to cabin roof insulation with D4730-020-035 Velcro Strip as shown in Figures 15, 16, 17 and 18.
- 3.1.41 Cap and stow connectors PS8J1 and PS10J1 for security.
- 3.1.42 Close D4635-041/-042/-043/-044 LH/RH panels by locking 2351-20-21-C3C Dzus screws to LH/RH Ceiling Panels as shown in Figure 20.
- 3.1.43 If the aircraft is equipped with a hoist radio, mount radio using the previously drilled holes in the D4634-041 ceiling panel. Connect cannon plugs thru the access provided and verify that radio operates properly.
- 3.1.44 Transfer any decal or placard from existing panel to Dart panels as applicable.

3.2 Functional Test of D139-816-011 Interior Ceiling Panel Kit

The following tests are organized in a sequential fashion. However, they may be completed in a non-sequential order to accommodate other conditions. The person performing these tests should be familiar with the Agusta AB/AW139 airframe and avionics system.

If any system fails to operate as expected, troubleshoot and repair in accordance with the applicable sections of the Maintenance Manual and/or the ICA-D139-816.

3.2.1 Passenger Briefing System Operational Check

- a) Energize the aircraft electrical power in accordance with AFM and/or MM procedures.
- b) Energize the passenger briefing system by closing the PA circuit breaker and pushing the ON button on the control panel.
- c) Select the AUX1 audio input on the number 1 and number 2 audio control panel.
- d) Use the up/down arrow buttons on the passenger briefing control panel to scroll through the list of available messages.
- e) Select a message and push the play button to start a "briefing".
- f) Verify that the control panel shows the PLAY message. After two seconds, make sure that the "vocal message" is clearly heard in all six cabin speakers.

- g) Make a PA announcement by selecting PA button on the number 2 audio panel (pilot). Make sure that the message is clearly heard in all six speakers.
- h) Repeat transmission from number 1 audio panel (co-pilot side).
- i) De-energize the aircraft electrical power in accordance with AFM and/or MM procedures.

3.2.2 Advisory Lights Operational Check

- a) Energize the aircraft electrical power in accordance with AFM and/or MM procedures.
- b) Ensure that the LIGHTING PSU circuit breaker is closed.
- c) On number 2 (pilot) audio panel, push the NO SMK button. Make sure both forward and aft NO SMOKE advisory lights are on and related audio signal should be heard on speakers.
- d) Push the SEAT BLT button on the same audio panel. Ensure both FASTEN SEAT BELT advisory lights are on.
- e) Repeat steps d) and e) on number 1 (co-pilot) audio panel.
- f) De-energize the aircraft electrical power in accordance with AFM and/or MM procedures.

3.2.3 Cabin Lights Operational Check

- a) Energize the aircraft electrical power in accordance with AFM and/or MM procedures.
- b) Ensure that LIGHTING CAB circuit breaker is closed.
- c) On the light control panel, turn the CABIN LIGHT KNOB out of OFF detent.
- d) Ensure all light segments of cabin LED lights turn on.
- e) Turn the CABIN LIGHT KNOB on the light panel to the OFF position. Ensure the cabin lights go off.
- f) De-energize the aircraft electrical power in accordance with AFM and/or MM procedures.

3.2.4 Emergency Lights Operational Check

- a) Energize the aircraft electrical power in accordance with AFM and/or MM procedures.
- b) Ensure that the LIGHTING-EMERG LT circuit breaker is closed.
- c) Set the EMERG LT switch on the light control panel to ARM.
- d) Ensure none of the emergency lights are on.
- e) Set the EMERG LT switch on the light control panel to ON.
- f) Ensure that the DS53 (FWD cabin roof), DS54 (AFT cabin roof), DS51 (LH over wing) and DS52 (RH over wing) emergency lights are on.
- g) Set the EMERG LT switch on the light control panel back to ARM. Make sure that the emergency lights go off.
- h) Open the LIGHTING-EMERG LT circuit breaker.
- i) Ensure that the DS53 (FWD cabin roof), DS54 (AFT cabin roof), DS51 (LH over wing) and DS52 (RH over wing) emergency lights are on.
- j) Close the EMERG LT circuit breaker and make sure the emergency lights go off.
- k) Set the EMERG LT switch on the control panel to OFF.
- l) Push the EMERG LT switch (S13) in the cabin. Make sure that the DS53 (FWD cabin roof), DS54 (AFT cabin roof), DS51 (LH over wing) and DS52 (RH over wing) emergency lights are on.
- m) Push the EMERG LT switch (S13) in the cabin. Make sure that the emergency lights go off.
- n) De-energize the aircraft electrical power in accordance with AFM and/or MM procedures.

3.2.5 Integrated Environmental Control System Operational Check

- a) Energize the aircraft electrical power in accordance with AFM and/or MM procedures.
- b) On the ECS control panel, set the AFT FAN switch to HIGH.
- c) Fully open the cabin air diffusers.
- d) Ensure that there is air flow on each of the cabin air diffusers.
- e) Ensure that the direction and intensity of the airflow can be adjusted on each cabin air diffuser.
- f) Set the AFT FAN switches to OFF.
- g) De-energize the aircraft electrical power in accordance with AFM and/or MM procedures.

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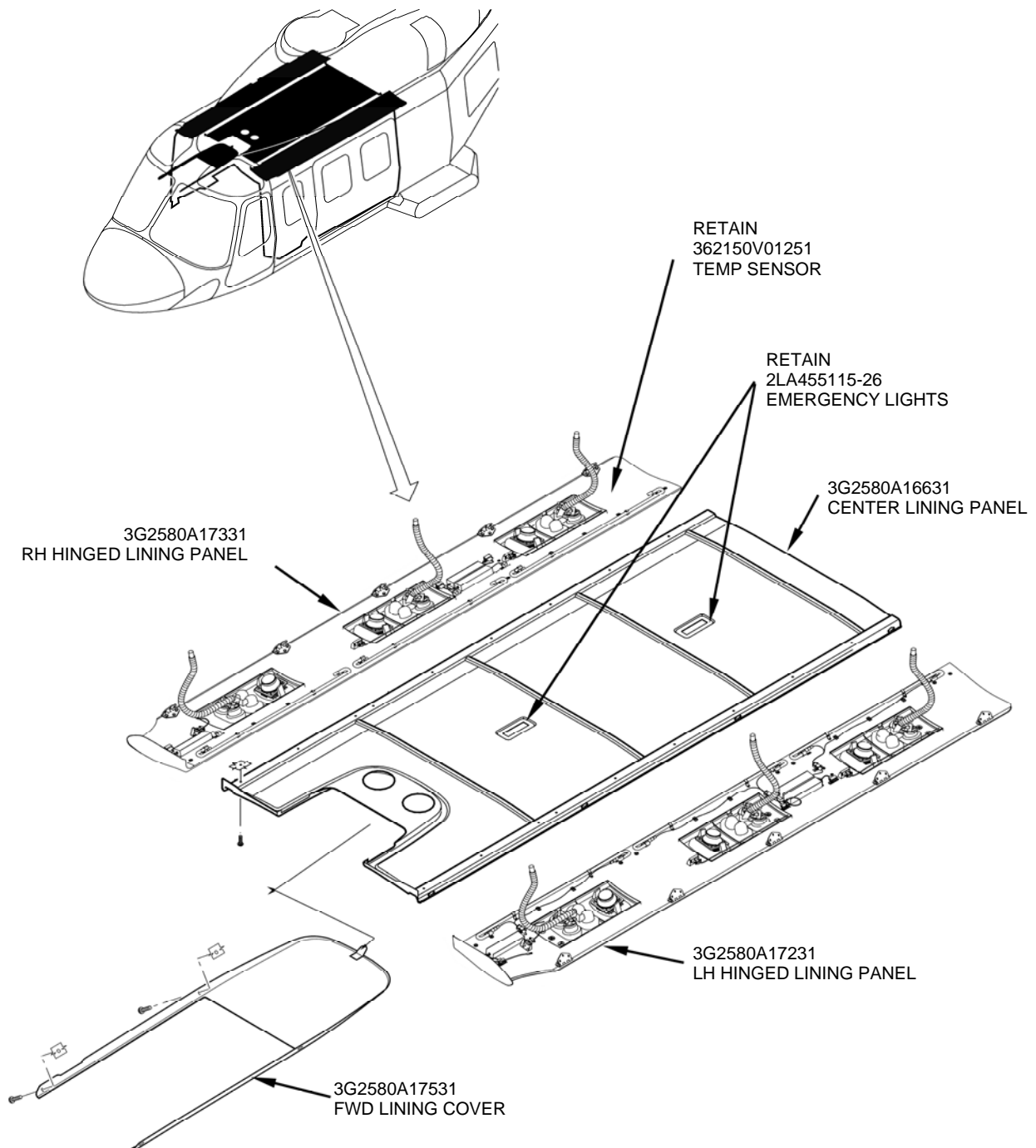


Figure 2. – Removal of OEM Ceiling Panels

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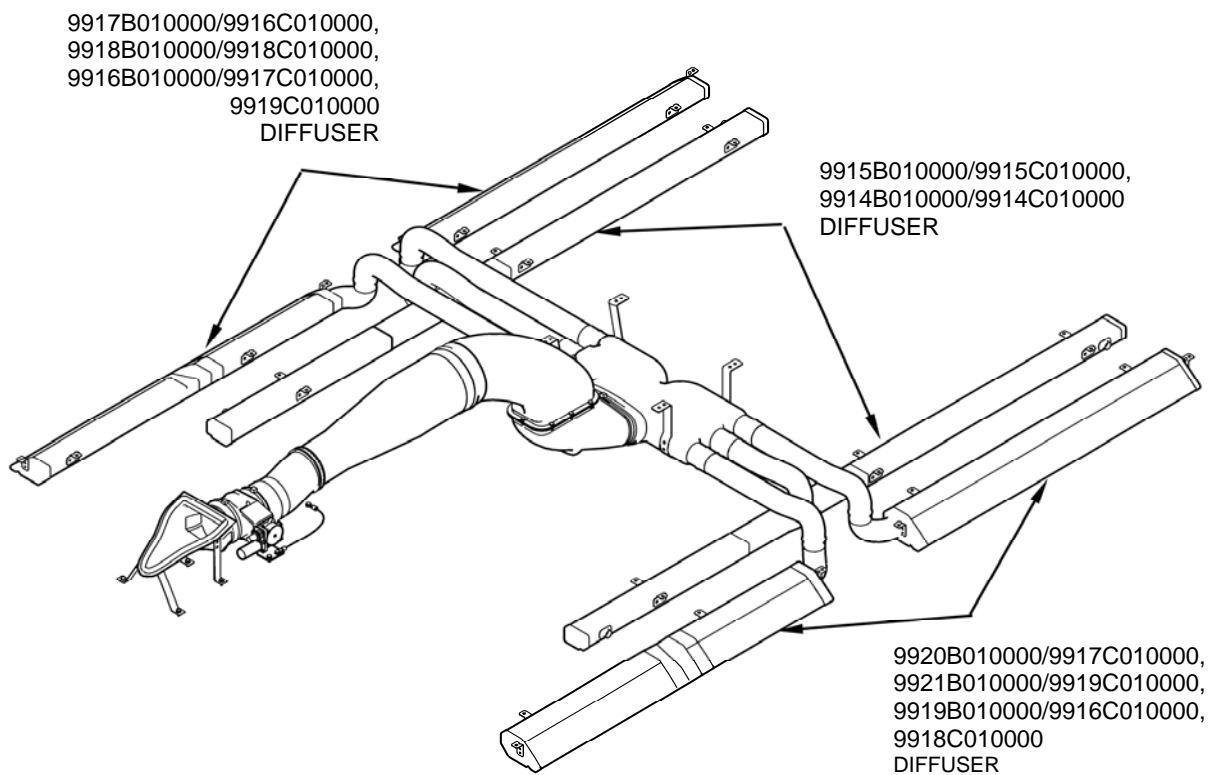


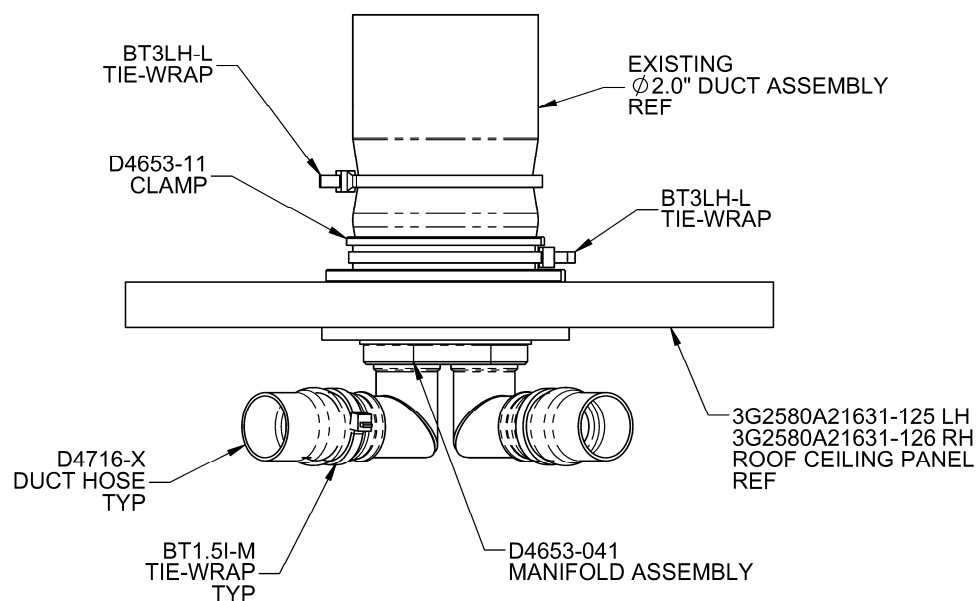
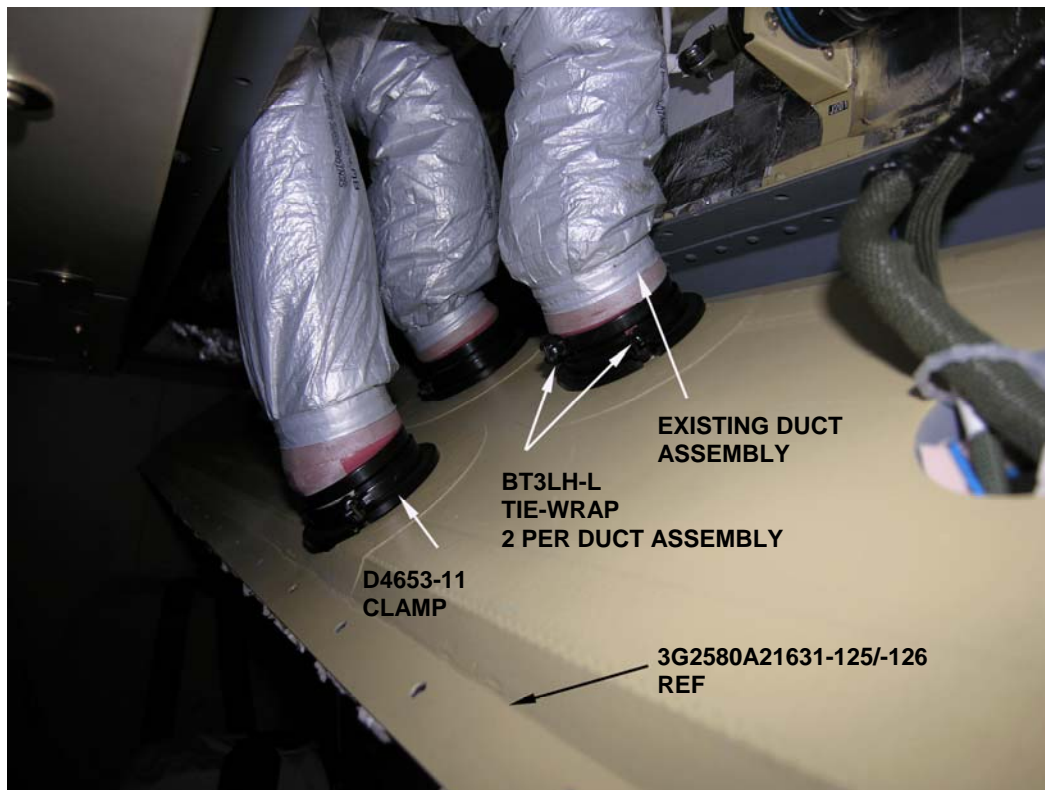
Figure 3. – Removal of OEM Air Diffuser

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PRELIMINARY ISSUE***Figure 4 – Installation of D4653-041 Manifold***

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REMOVE 3 x MS27039-1-09 SCREW TO
TRANSFER HOLES TO D4634-041 FWD
CENTER PANEL AS SHOWN



Figure 5a – Remove screws from circuit breaker panel

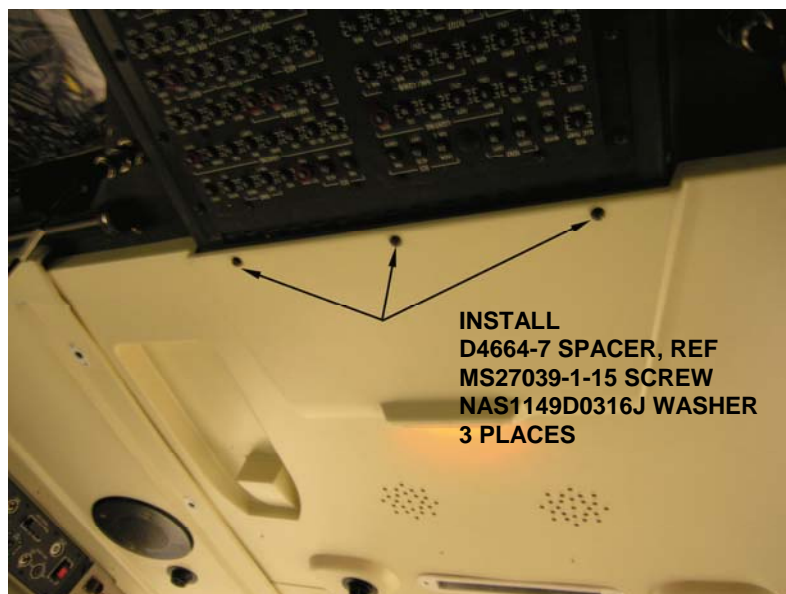


Figure 5b. – Install screws in D4634-041 Fwd Panel

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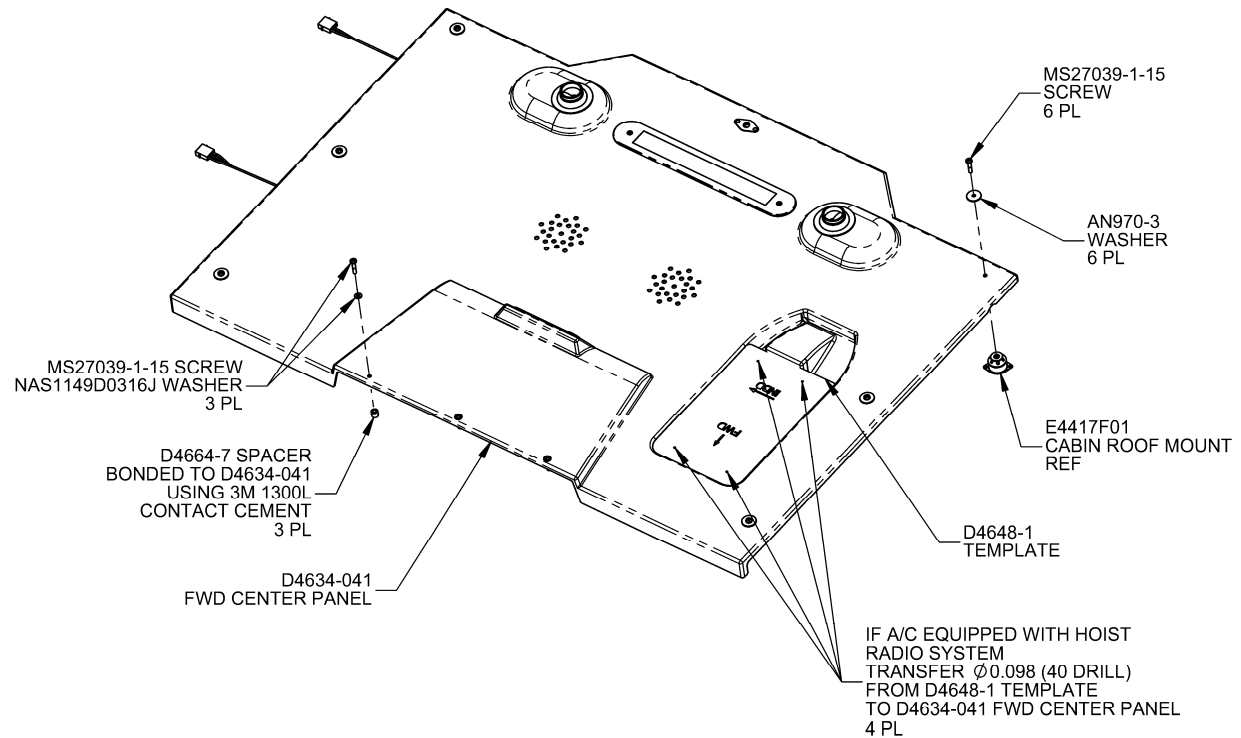


Figure 6. – Center Panel Installation (D4634-041 Fwd Shown)
D4634-043/D4634-045 Similar

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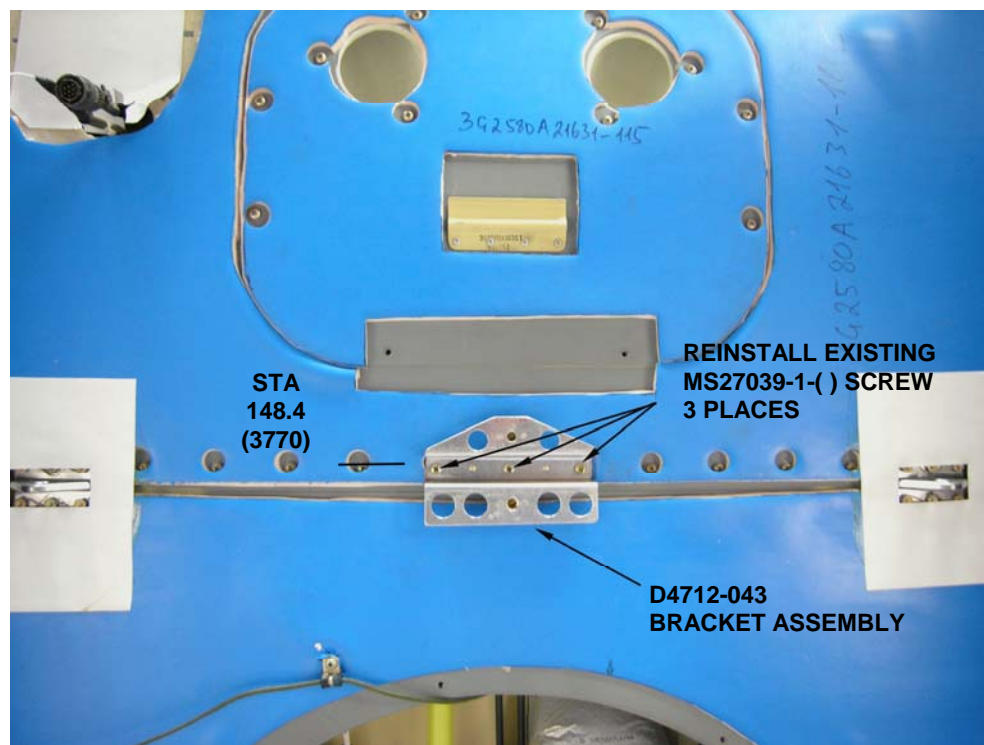
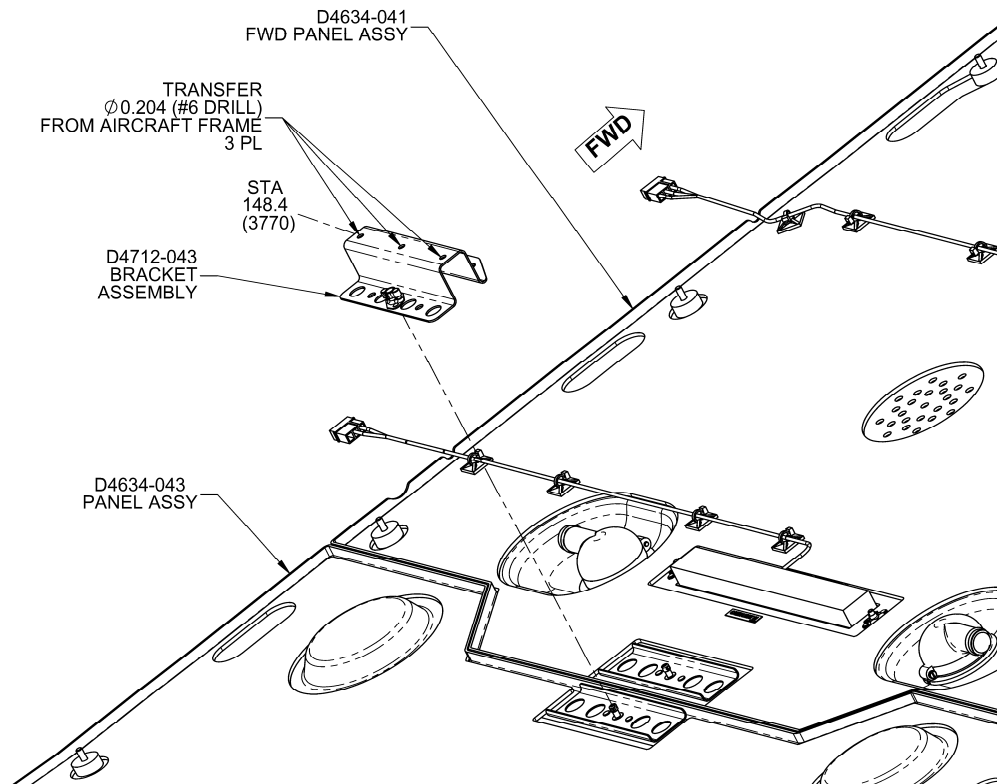


Figure 7. – Installing D4712-043 at STA 148.4 (D4634-041/-043 Shown)

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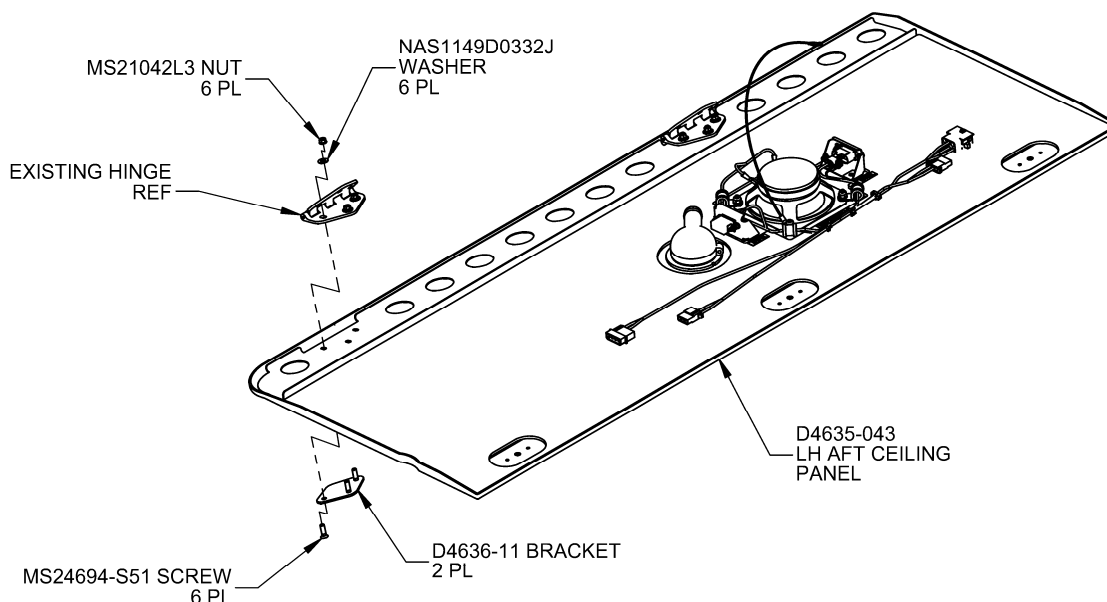


Figure 8 – Installation of Outboard Panels (D4635-043 LH Shown)
D4635-041/-042/-044 Similar

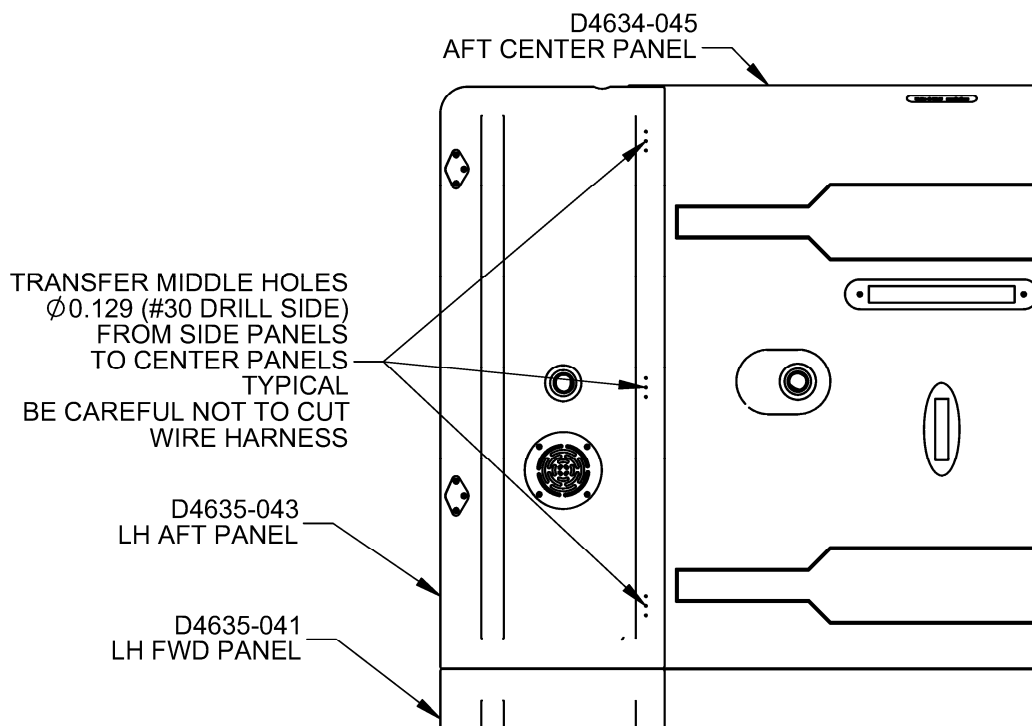


Figure 9. – Transferring Holes from Side Panels to Center Panels (D4635-043 Shown)
D4635-041/-042/-044 Similar

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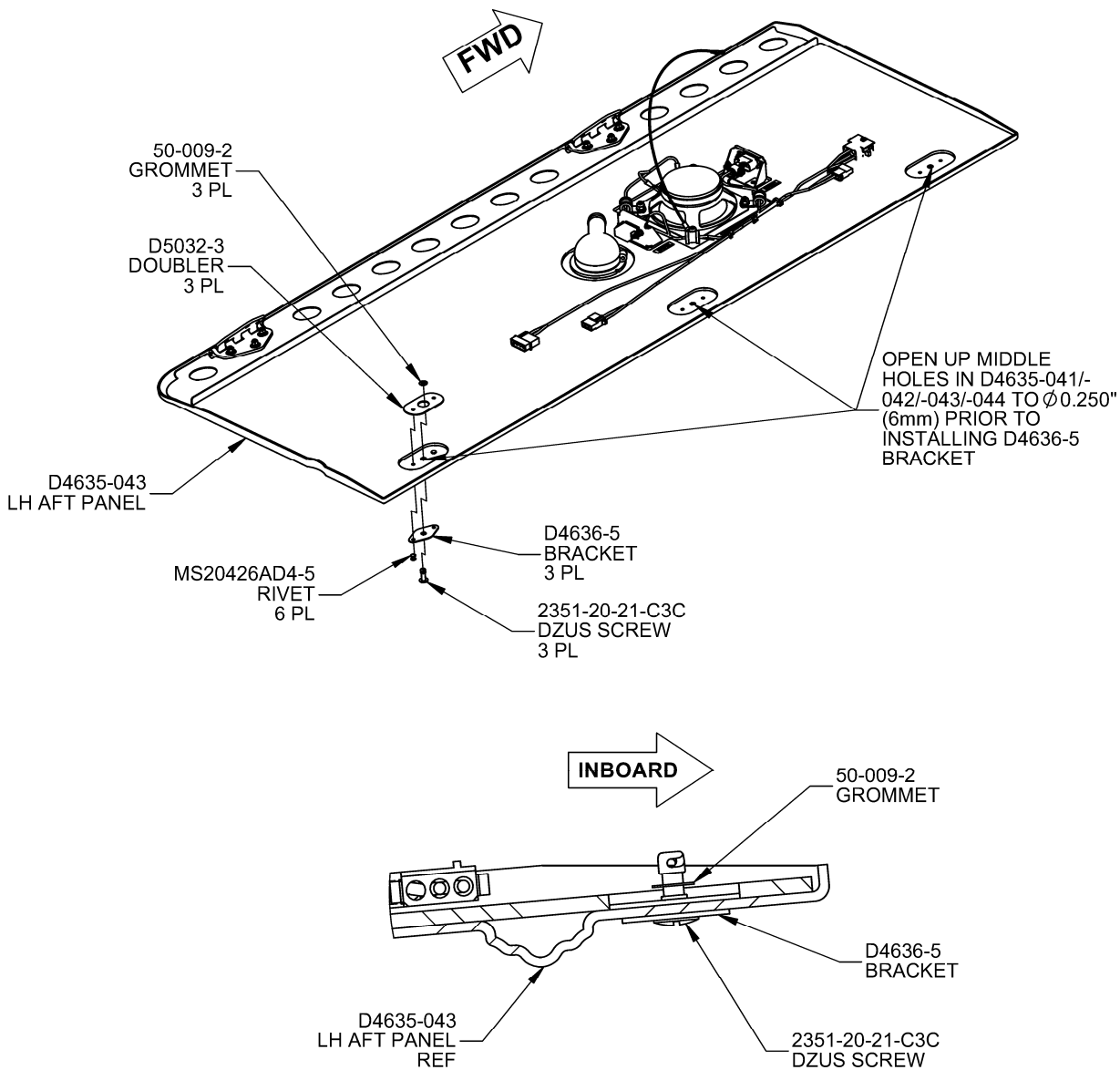
PRELIMINARY ISSUE

Figure 10. – Opening Up Holes in Side Panels (D4635-043 Shown)
D4635-041/-042/-044 Similar

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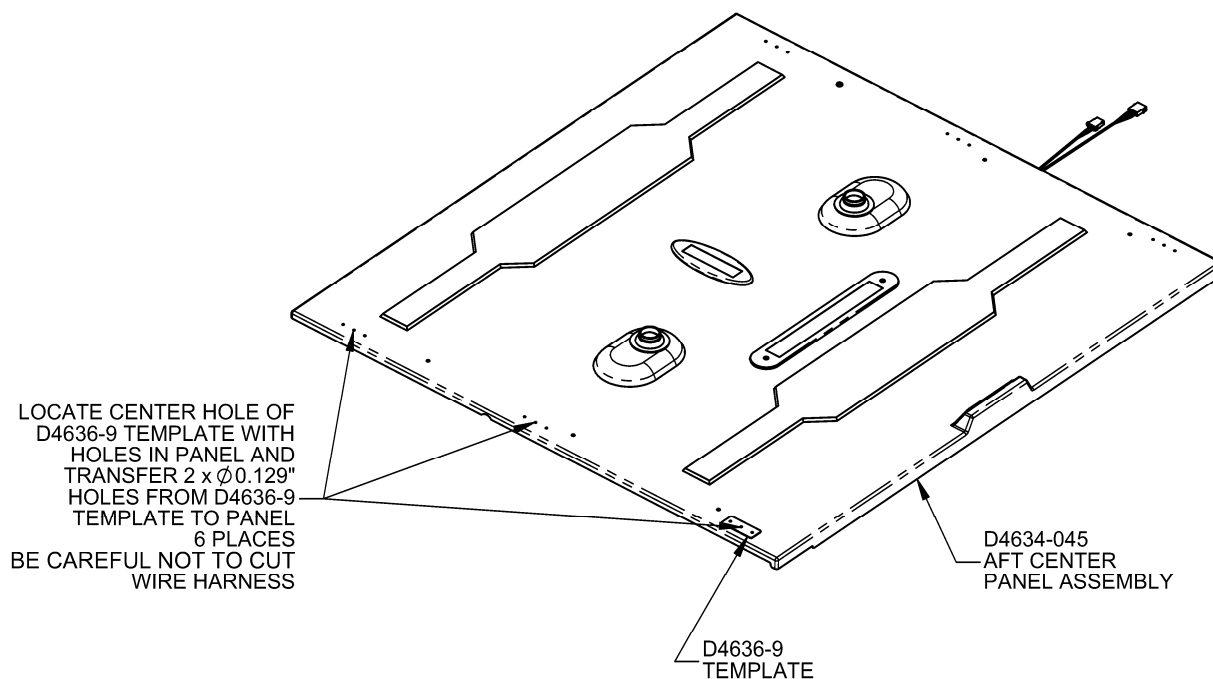


Figure 11. – Transferring Holes from Template to Center Panels (D4634-045 Aft Shown)
D4634-041/-043 Similar

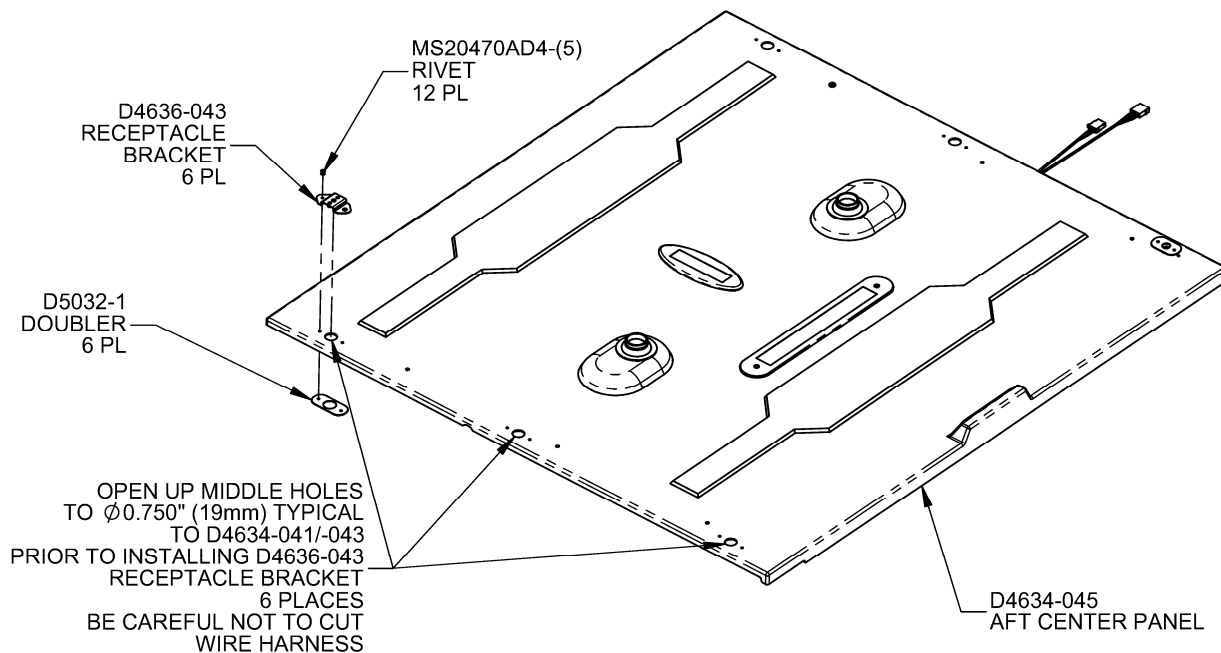


Figure 12. – Installation of D4636-043 on Center Panels (D4634-045 Aft Shown)
D4634-041/-043 Similar

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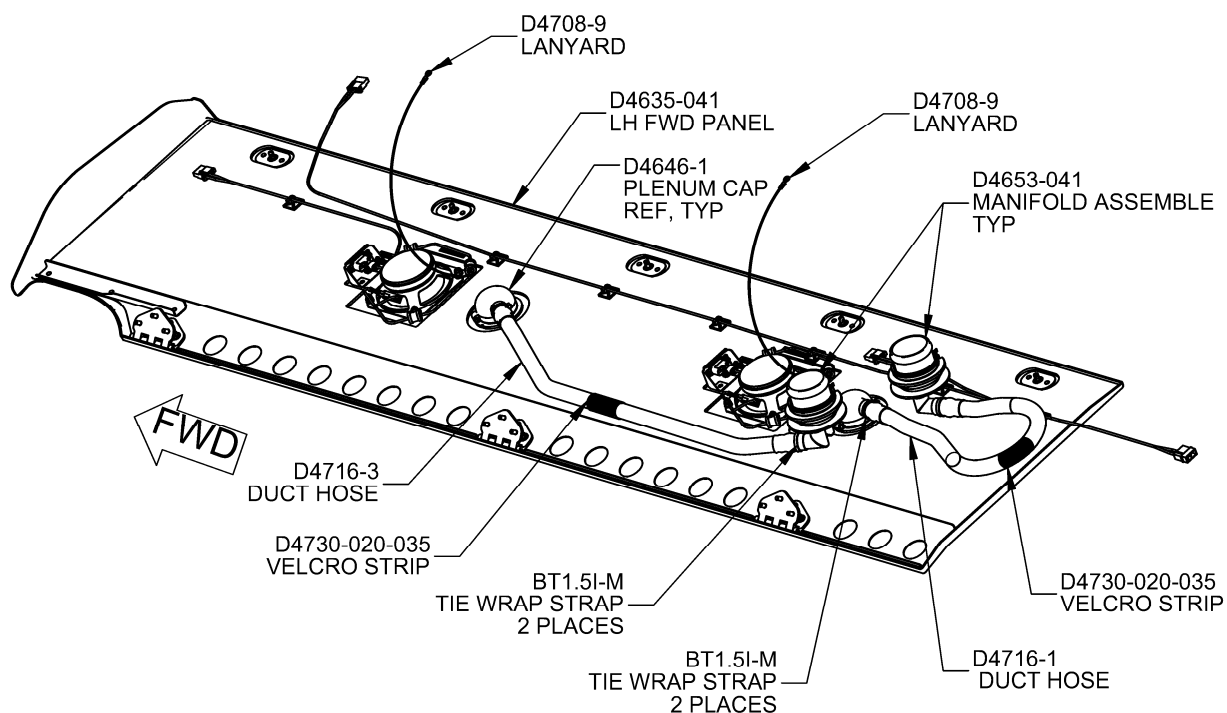


Figure 13 – Connect D4716-X Duct Hose to Fwd Panel (D4635-041 LH Shown)
D4635-042 RH Fwd Panel Opposite

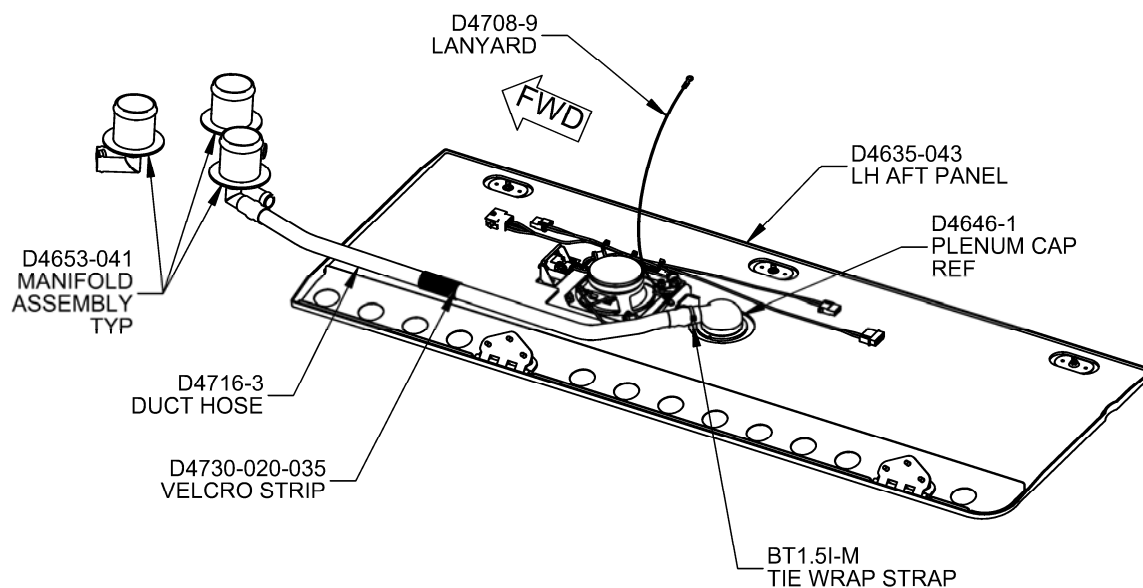


Figure 14 – Connect D4716-X Duct Hose to Aft Panel (D4635-043 LH Shown)
D4635-044 RH Aft Panel Opposite

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D4708-9
LANYARD

SECURE DUCT HOSES WITH
D4730-020-035 VELCRO AS SHOWN



**Figure 15 – Connect D4716-X Duct Hose to Fwd Panel (D4635-042 RH Shown)
D4635-041 LH Fwd Panel Opposite**

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SECURE DUCT HOSES WITH
D4730-020-035 VELCRO AS SHOWN

D4708-9
LANYARD



**Figure 16 – Connect D4716-X Duct Hose to Aft Panel (D4635-044 RH Shown)
D4635-043 LH Aft Panel Opposite**



D4728-063 HARNESS ASSEMBLY

MS24694-S51 SCREW
NAS1149DO332J WASHER
MS21042L3 NUT
2 PL

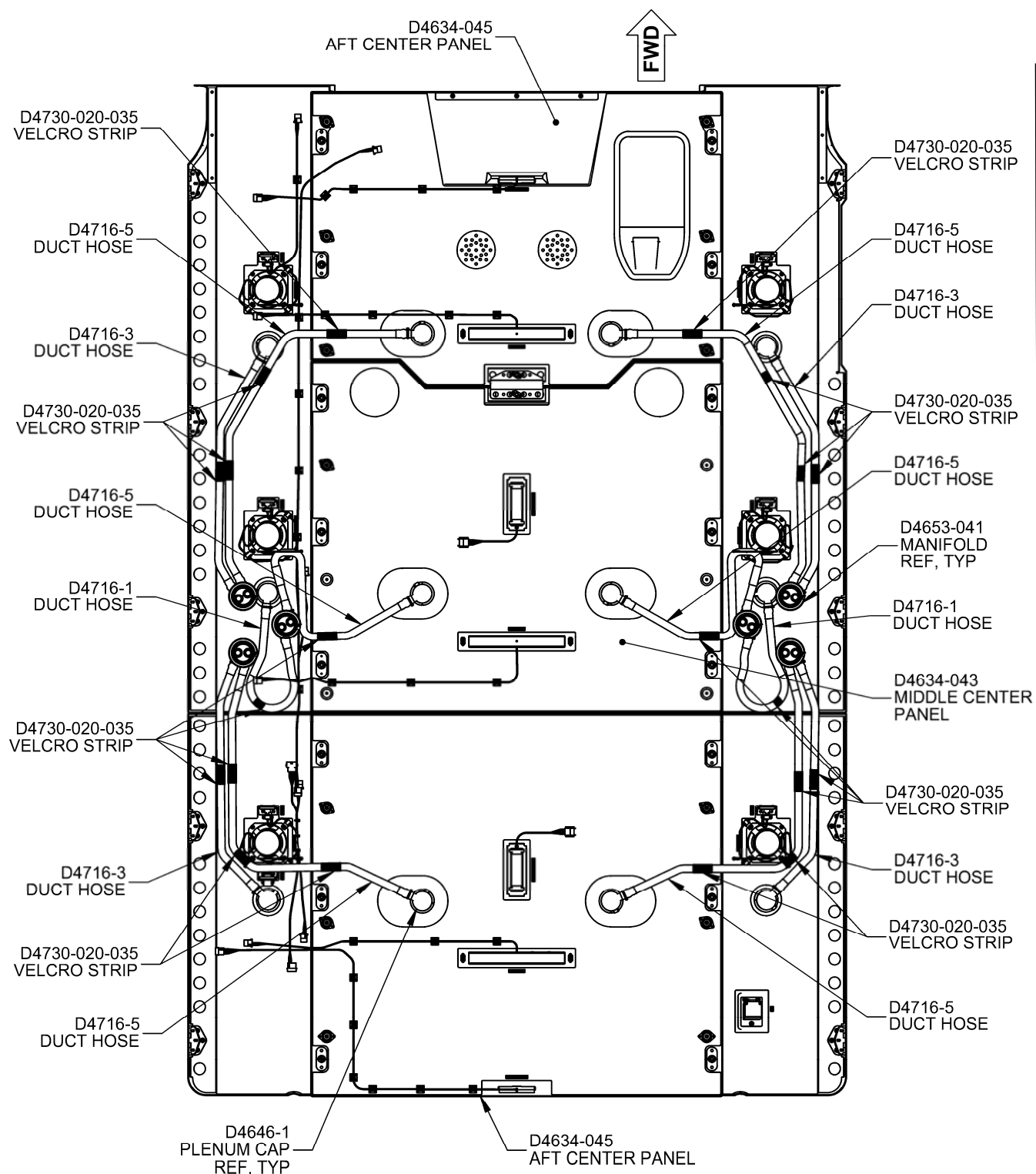
REINSTALL 362150V01251
TEMPERATURE SENSOR
USING
MS24694-S51 SCREW
NAS1149DO332J WASHER (2)
D4728-063 HARNESS ASSEMBLY
MS21042L3 NUT

Figure 17 – Install D4728-063 Ground Harness Assembly to D4635-044 RH Aft Panel

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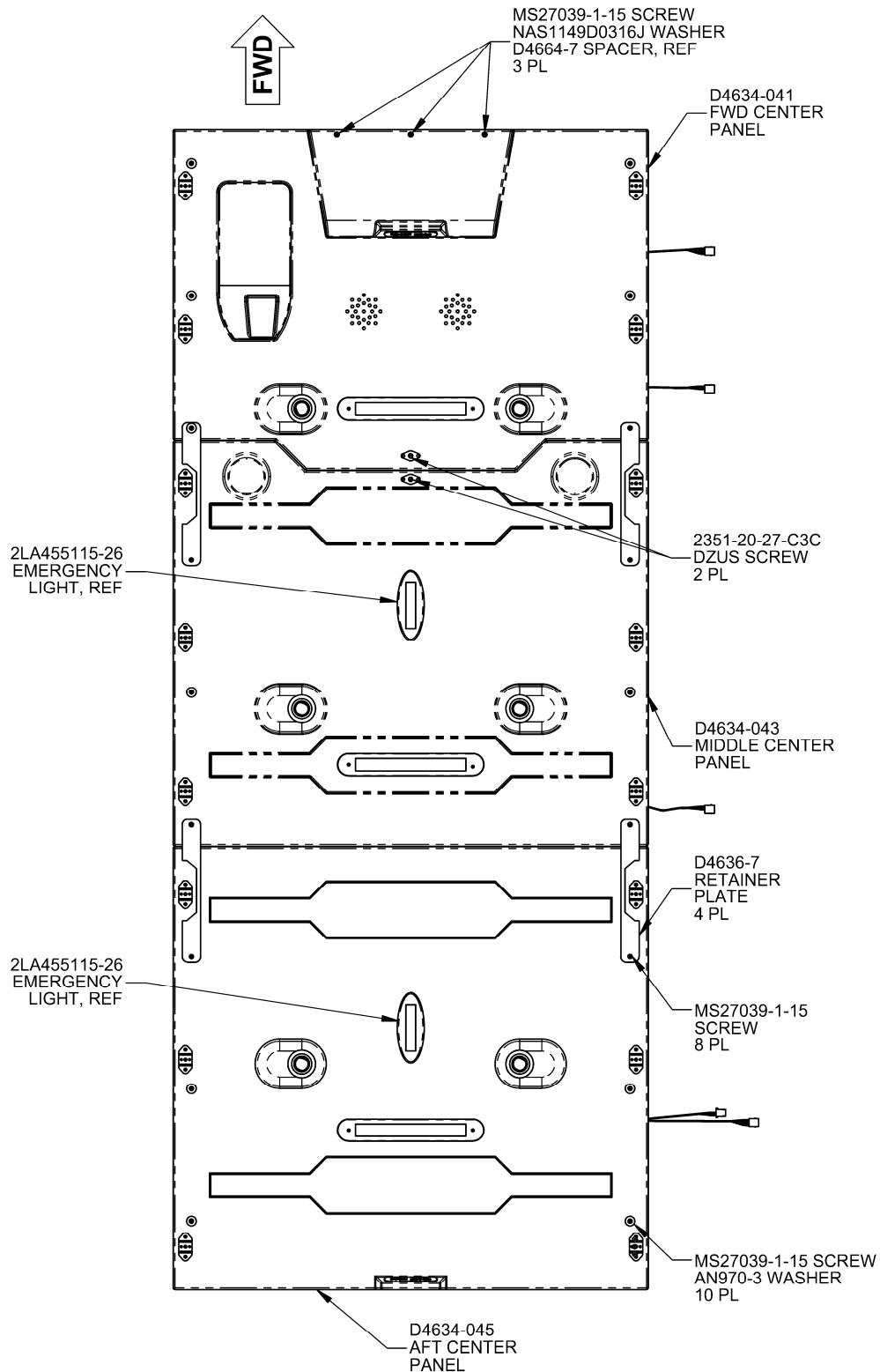


***Figure 18 – Connecting D4716-X Duct Hoses to D4634-0XX Center Panels
(Looking from Cabin Roof Down to the Panels)***

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Date: 13.12.16



***Figure 19 – Installation of D4636-7 Retainer Plate on D4634-0XX Center Panels
(Looking Up at Cabin Roof to the Panels)***

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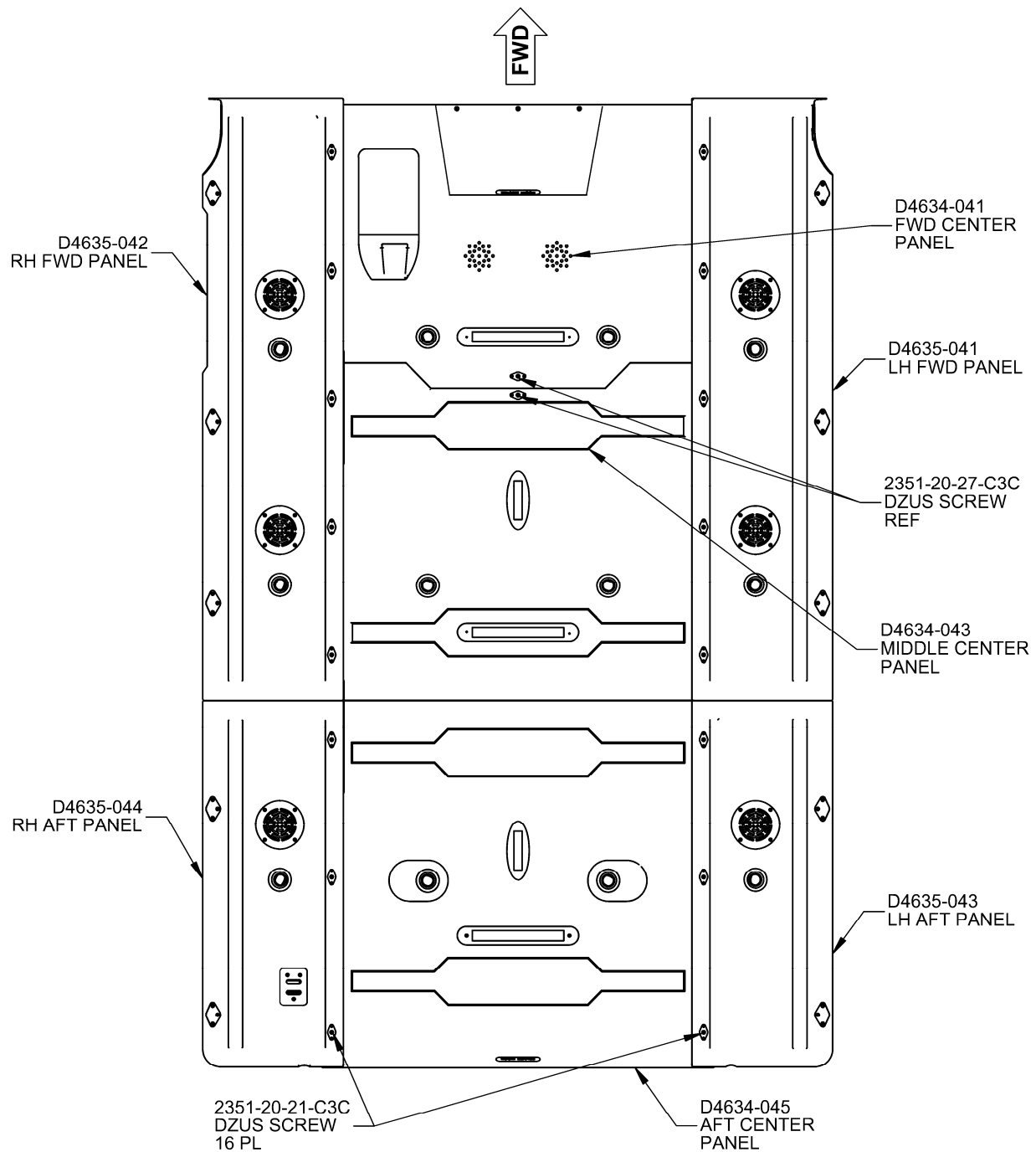


Figure 20 – Installation of 2351-20-21-C3C Dzus Screws to the Panels
(Looking Up Cabin Roof to the Panels)

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 Date: 13.12.16

4.0 WEIGHT AND BALANCE:

The following is the net weight change associated with the D139-816-011 Kit.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D139-816-011	-45.0 lb	0 in	0 in lb	170.2 in	-7659 in lb
Interior Ceiling Panel Kit	-20.4 kg	0 m	0 m kg	4.32 m	-88.1 m kg

PRELIMINARY ISSUE

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Date: 13.12.16

5.0 PARTS LIST

PRELIMINARY ISSUE

Qty -011	Part Number	Description
X	D139-816-011	INTERIOR CEILING PANEL KIT
1	D4634-041	FWD, CENTER CEILING PANEL ASSEMBLY
1	D4634-141	* FWD, CENTER CEILING REPLACEMENT PANEL ASSEMBLY
1	D4634-043	MIDDLE, CENTER CEILING PANEL ASSEMBLY
1	D4634-143	* MIDDLE, CENTER CEILING REPLACEMENT PANEL ASSEMBLY
1	D4634-045	AFT, CENTER CEILING PANEL ASSEMBLY
1	D4634-145	* AFT, CENTER CEILING REPLACEMENT PANEL ASSEMBLY
1	D4635-041	LH, FWD CEILING PANEL ASSEMBLY
1	D4635-141	* LH, FWD CEILING REPLACEMENT PANEL ASSEMBLY
1	D4635-042	RH, FWD CEILING PANEL ASSEMBLY
1	D4635-142	* RH, FWD CEILING REPLACEMENT PANEL ASSEMBLY
1	D4635-043	LH, AFT CEILING PANEL ASSEMBLY
1	D4635-143	* LH, AFT CEILING REPLACEMENT PANEL ASSEMBLY
1	D4635-044	RH, AFT CEILING PANEL ASSEMBLY
1	D4635-144	* RH, AFT CEILING REPLACEMENT PANEL ASSEMBLY
16	D4636-043	RECEPTACLE BRACKET ASSEMBLY
10	D4636-11	BRACKET
16	D4636-5	BRACKET
4	D4636-7	RETAINER PLATE
1	D4636-9	TEMPLATE
1	D4648-1	TEMPLATE
6	D4653-041	VENT MANIFOLD ASSEMBLY
6	D4653-11	CLAMP
3	D4664-7	SPACER
1	D4712-043	BRACKET ASSEMBLY
2	D4716-1	DUCT HOSE
4	D4716-3	DUCT HOSE
6	D4716-5	DUCT HOSE
1	D4728-057	HARNESS ASSEMBLY
1	D4728-063	HARNESS ASSEMBLY
24	D4730-020-035	VELCRO STRIP
16	D5032-1	DOUBLER
16	D5032-3	DOUBLER
16	2351-20-21-C3C	DZUS SCREW
16	50-009-2	GROMMET
10	AN970-3	WASHER
24	BT1.5I-M	TIE WRAP
12	BT3LH-L	TIE WRAP
33	MS21042L3	NUT
36	MS24694-S51	SCREW
21	MS27039-1-15	SCREW
3	NAS1149D0316J	WASHER (or AN960JD10L)
34	NAS1149D0332J	WASHER (or AN960JD10)
6	NAS1149D0663J	WASHER (or AN960JD616)

NOTES: (*) DENOTES THAT PART IS INCLUDED WITH ASSEMBLY ABOVE
D4634-141/-143/-145 ARE REPLACEMENT PANELS
D4635-141/-142/-143/-144 ARE REPLACEMENT PANELS